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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/522,359	03/09/2000	Wadood Hamad	A-6756	3106
1726 7590 12/27/2006 INTERNATIONAL PAPER COMPANY 6285 TRI-RIDGE BOULEVARD LOVELAND, OH 45140			EXAMINER FERGUSON, LAWRENCE D	
			ART UNIT 1774	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE 3 MONTHS			MAIL DATE 12/27/2006	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/522,359

Applicant(s)

HAMAD ET AL.

Examiner

Lawrence D. Ferguson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,6,8,18,20-27,29 and 31-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6,8,18,20-27,29 and 31-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment mailed October 20, 2006.

Examiner regrets the untimely reopening of the case and withdraws the previous rejections to further prosecute the claimed invention. Claims 1, 18, and 25 were amended, claims 4 and 28 were cancelled, rendering claims 1-3, 6, 8, 18, 20-27, 29 and 31-38 pending in this case. The indicated allowability of cancelled claims 4 and 28 are withdrawn.

Claim Rejections – 35 USC § 103(a)

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 6, 8, 20-27, 29 and 31-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawson et al (U.S. 4,161,422).

Lawson teaches a resin impregnated fibrous web filter medium (paper) comprising polymeric thermosetting resin (column 2, lines 5-26 and column 3, lines 11-16 and 34-38) having a pattern of impregnated zones in the form of discontinuous areas of any desired geometrical shape or configuration, such as circles, stripes, diamonds or

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regular or irregular polygons or complex designs which convey information such as words or pictures (printing) (column 3, lines 39-62 and Figure 1). Lawson further discloses the paper has a polyester or acrylic composition (column 2, lines 53-57 and column 3, lines 11-38). Printing paper is not clearly defined over that of filter paper, and is therefore given little patentable weight. Regarding claims 37-38, calendering is directed to a process, which introduces a process limitation to the product claim. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966. Further, process limitations are given no patentable weight in product claims.

Although Lawson does not specifically disclose the polymer material is no more than 5% of the basis weight of the paper or board, weight percentage is an optimizable feature. Applicant fails to disclose any criticality with respect to the recited "polymer material is no more than 5% of the basis weight of the paper or board." Therefore, in the absence of any evidence to the contrary, it would have been obvious to one of ordinary skill in the art to optimize the polymeric components of the impregnated paper because discovering the optimum or workable range involves only routine skill in the art. The weight percentage directly affects the flexibility of the paper material. *In re Aller* 105 USPQ 233 and see *In re Boesch*, 617 USPQ 215. In the absence of evidence of criticality for the weight percentage of the polymer material by Applicant, it is obvious to optimize the material. Additionally, there is also no clear teaching away from the

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claimed weight percentage of the polymeric material by Lawson, as the reference does not exclude any percentages for the polymeric impregnated material.

Claim Rejections – 35 USC § 103(a)

4. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lawson (U.S. 4,161,422) in view of Eber et al (U.S. 4,488,932).

Lawson is relied upon for claim 1 as above. Lawson does not explicitly disclose styrene butadiene in the paper structure. Eber teaches paper made of pulp having a geometric component which comprises styrene butadiene (column 15, line 42 through column 16, line 10). Lawson and Eber are both directed to paper compositions. It would have been obvious to one of ordinary skill in the art to have employed the styrene butadiene, as taught in Eber, in the paper of Lawson to improve the tensile strength of the paper (column 15, lines 42-68). Since Lawson teaches that resins may be of any desirable thermoplastic or thermoset resins capable of acting as a binder (column 3, lines 14-20), and Eber also teaches specific bonding agents or binders including styrene butadiene, it would have been obvious to one of ordinary skill in the art to have used styrene butadiene as a binder in the filter paper of Lawson. It is also noted that there is a commonality with resins such as polyvinyl acetate, and polyvinyl chloride and urea formaldehydes, to name a few. Therefore the styrene butadiene disclosed by Eber is deemed to be a functional equivalent of the binder's disclosed by Lawson for purposes of binding fibers. Although neither reference discloses the polymer material is no more than 5% of the basis weight of the paper or board, weight percentage is an optimizable

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feature. It would have been obvious to one of ordinary skill in the art to optimize the polymeric components of the impregnated paper because discovering the optimum or workable range involves only routine skill in the art. The weight percentage directly affects the flexibility of the paper material. *In re Aller* 105 USPQ 233 and see *In re Boesch*, 617 USPQ 215. In the absence of evidence of criticality for the weight percentage of the polymer material by Applicant, it is obvious to optimize the material. Additionally, there is also no clear teaching away from the claimed weight percentage of the polymeric material by Lawson in view of Eber, as the reference does not exclude any percentages for the polymeric impregnated material.

The rejection made under 35 U.S.C. 103(a) as being unpatentable over Lawson (U.S. 4,161,422) in view of Eber et al (U.S. 4,488,932) is maintained.

Response to Arguments

5. The rejection made under 35 U.S.C. 102(b) as being anticipated by Lawson (U.S. 4,161,422) is withdrawn; however, the rejection is maintained under 35 U.S.C. 103(a) as being unpatentable over Lawson et al (U.S. 4,161,422). Applicant argues Lawson does not teach wherein the polymer material is no more than 5% of the basis weight of the paper or board. Although Lawson does not specifically disclose the polymer material is no more than 5% of the basis weight of the paper or board, weight percentage is an optimizable feature. It would have been obvious to one of ordinary skill in the art to optimize the polymeric components of the impregnated paper because discovering the optimum or workable range involves only routine skill in the art. The

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weight percentage directly affects the flexibility of the paper material. *In re Aller* 105 USPQ 233 and see *In re Boesch*, 617 USPQ 215. In the absence of evidence of criticality for the weight percentage of the polymer material by Applicant, it is obvious to optimize the material. Additionally, there is also no clear teaching away from the claimed weight percentage of the polymeric material by Lawson, as the reference does not exclude any percentages for the polymeric impregnated material.

Applicant's argument to rejection made under 35 U.S.C. 103(a) as being unpatentable over Lawson (U.S. 4,161,422) in view of Eber et al (U.S. 4,488,932) have been considered but are unpersuasive. Applicant argues neither reference teaches wherein the polymer material is no more than 5% of the basis weight of the paper or board. Although neither reference specifically discloses the polymer material is no more than 5% of the basis weight of the paper or board, weight percentage is an optimizable feature. It would have been obvious to one of ordinary skill in the art to optimize the polymeric components of the impregnated paper because discovering the optimum or workable range involves only routine skill in the art. The weight percentage directly affects the flexibility of the paper material. *In re Aller* 105 USPQ 233 and see *In re Boesch*, 617 USPQ 215. In the absence of evidence of criticality for the weight percentage of the polymer material by Applicant, it is obvious to optimize the material. Additionally, there is also no clear teaching away from the claimed weight percentage of the polymeric material by Lawson in view of Eber, as the reference does not exclude any percentages for the polymeric impregnated material.

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6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LF

L. Ferguson
Patent Examiner
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RENA DYE
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